

# Pejman Rohani

## *Curriculum Vitae*

### EMPLOYMENT RECORD

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Professor,  
Odum School of Ecology & Department of Infectious Diseases  
*University of Georgia*

CURRENT, FROM JUN 2015

Pearl L. Kendrick Professor,  
Department of Ecology & Evolutionary Biology, Center for the  
Study of Complex Systems, Department of Epidemiology  
*University of Michigan*

SEPT 2009 - JUN 2015

Professor,  
Odum School of Ecology  
*University of Georgia*

AUG 2008 - SEPT 2009

Associate Professor,  
Odum School of Ecology, Center for Tropical and Emerging  
Global Diseases  
*University of Georgia*

AUG 2005 - AUG 2008

Assistant Professor,  
Odum School of Ecology, Center for Tropical and Emerging  
Global Diseases  
*University of Georgia*

AUG 2001 - AUG 2005

Royal Society University Research Fellow  
Department of Zoology  
*University of Cambridge*

OCT 1999 - AUG 2001

Natural Environment Research Council Fellow  
Department of Zoology  
*University of Cambridge*

OCT 1996 - OCT 1999

Postdoctoral Research Fellow  
Department of Mathematics  
*University of Utah*

OCT 1995 - OCT 1996

Higher Scientific Officer  
Sea Mammal Research Unit  
*Cambridge*

JAN 1995 - OCT 1995

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### EDUCATION

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1995 **Doctor of Philosophy**  
BIOLOGY – *Imperial College, University of London*

1991 **Bachelor of Science**  
MATHEMATICS – *University of Manchester*

### AWARDS

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2015 **President's Extraordinary Research Faculty**  
*University of Georgia*

2014 **Collegiate Professorship**  
*University of Michigan*

2007 **Fellow**  
*John Simon Guggenheim Memorial Foundation*

2007 **Creative Research Medal**  
*University of Georgia*

2004 **Lilly Teaching Fellow**  
*University of Georgia*

2003 **New Investigator Award**  
*Ellison Medical Foundation*

2000 **Research Fellow, New Hall**  
*University of Cambridge, UK*

1999 **University Research Fellow**  
*Royal Society, UK*

1999 **Advanced Research Fellow**  
*Natural Environment Research Council, UK*

1997 **Research Fellow, New Hall**  
*University of Cambridge, UK*

1996 **Research Fellow**  
*Natural Environment Research Council, UK,*

1995 **Research Fellow**  
*University of Utah*

## GRANT FUNDING

### In Progress

OCT 2017 – SEP 2022  
Vaccine hesitancy and erosion of herd immunity:  
harnessing big data to forecast disease  
re-emergence  
National Institutes of Health, \$1.93m; UGA subcontract:  
\$ 610K  
*Robani*

OCT 2017 – SEP 2020  
Southern Africa Mother Infant Pertussis Study -  
Nasopharyngeal Carriage (SAMIPS-NPC)  
National Institutes of Health, \$2m; UGA subcontract:  
\$270K  
*Robani*

MAY 2017 – MAY 2018  
Defining the contribution of the microbiome in  
respiratory pathogen infection and transmission  
UGA President's Interdisciplinary Seed Grant Program,  
\$100K  
*Tompkins et al.*

SEPT 2016 – AUG 2018  
Glycoprotein charge and avian influenza virus  
evolution  
National Institutes of Health, \$393K  
*Tompkins & Robani*

AUG 2014 – AUG 2019  
X-raying high-dimensional infectious disease data  
using statistical inference  
National Institutes of Health MIDAS Center of Excellence,  
\$12.5m; UGA subcontract: \$1m  
*Robani*

AUG 2014 – AUG 2019  
Forecasting tipping points in emerging and  
re-emerging infectious diseases  
National Institutes of Health, \$2.75m; Subcontract: \$400K  
*Drake, Robani, Park, Ferrari, Epurneau*

AUG 2014 – AUG 2019  
Environmental Infection Transmission Analysis  
National Institutes of Health, \$2.75m  
*Eisenberg, Eisenberg, Ionides, Koopman, Robani, Meza*

MAY 2012 – MAY 2017  
Integrating immunology, epidemiology, and  
evolution to understand and control pertussis  
transmission  
National Institutes of Health, \$1.7m  
*Robani, King*

### Completed

SEP 2013 – SEP 2014  
Influenza Infection & *Streptococcal pneumoniae*  
Carriage  
Pfizer pharmaceuticals, \$100K  
*Foxman, Aiello, Darwid, Robani*

## GRANT FUNDING, C<sup>2</sup>TD

AUG 2010 – AUG 2013  
Demographic and behavioral responses to resource  
shifts and the transmission of rabies in vampire  
bats  
National Science Foundation, \$579,908  
*Altizer, Robani, Rupprecht*

AUG 2009 – JULY 2013  
Population Ecology of Avian Influenza viruses  
National Science Foundation, \$498,200  
*Robani, Drake, Stallknecht*

AUG 2008 – AUG 2013  
Evolutionary epidemiology of multi-transmission  
pathogens in multi-host networks  
James S. McDonnell Foundation, \$449,527  
*Drake, Robani*

AUG 2008 – AUG 2012  
Research and Policy for Infectious Disease Dynam-  
ics (RAPIDD) Program  
Interagency Personnel Agreement. National Institutes of  
Health, Fogarty International Center and Department of  
Homeland Security, Science & Technology Directorate

JAN 2008 – APR 2013  
Evaluating Candidate Vaccine Technologies Using  
Computational Models  
Bill & Melinda Gates Foundation, \$215,000  
*Robani*

OCT 2010 – OCT 2011  
Host response, viral infection and bacterial pneu-  
monia  
Pfizer pharmaceuticals, \$100K  
*Foxman, Robani*

AUG 2006 – OCT 2010  
Avian Influenza viruses in the environment: what  
is the probability of human contact and transmis-  
sion?  
Centers for Disease Control & Prevention, \$2,624,965  
*Stallknecht, Robani, Mead, Cole*

AUG 2003 – AUG 2008  
New Investigator Award in Global Infectious  
Diseases  
Ellison Medical Foundation, \$200K  
*Robani*

OCT 2004 – OCT 2007  
The Ecology of Disease Interference  
National Science Foundation, \$357K  
*Robani*

## GRANT FUNDING, C'TD

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MAY 2004 – APR 2007  
Disease Interference and Pathogen Communities  
National Institutes of Health, \$252K  
*Robani*

JUN 2004 – AUG 2007  
On long-term consequences of selfish behavior:  
a game theoretic approach to host-pathogen co-  
evolution  
National Science Foundation, \$100K  
*Robani, Keenan*

## GRANT FUNDING, C'TD

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DEC 2003 – DEC 2007  
The impact of environmental variation on host-  
parasite ecology and evolution  
Natural Environment Research Council, \$580K  
*Sait, Robani*

NOV 2001 – NOV 2004  
Invasion Sequence and the Role of Natural En-  
emies in Shaping Community Assemblages and  
Their Dynamics  
Natural Environment Research Council, \$500K  
*Sait, Robani*

## PUBLICATIONS

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### Books

- 2008 Keeling, M.J. & **Rohani, P.** "Modeling Infectious Diseases". Princeton University Press, Princeton
- IN PREP **Rohani, P.**, Altizer, S.A., Drake, J.M., Park, A.W. & Ezenwa, V. "A Primer in Infectious Disease Ecology". Princeton University Press, Princeton
- IN PREP **Rohani, P.** & Scarpino, S. (Eds) "The Integrative Biology of Pertussis". Oxford University Press, Oxford

### Scientific Reports

- 2013 Committee on the Assessment of Studies of Health Outcomes Related to the Recommended Childhood Immunization Schedule. The Childhood Immunization Schedule and Safety. Institute of Medicine, National Academies

### Technical Reports

- 2008 Conlan, A.J.K. & **Rohani, P.** Examining the Precision of the Measles Strategic Planning Tool. Report to the Quantitative Immunization and Vaccines Related Research advisory committee, World Health Organization
- 2009 **Rohani, P.** & Drake, J.M. Evaluating the Measles Strategic Planning Tool. Report to the Quantitative Immunization and Vaccines Related Research advisory committee, World Health Organization

### Papers

123. Domenech de Celles, M., Magpantay, F.M.G., King, A.A. & **Rohani, P.** (2017) Waning vaccinal immunity, the end of the honeymoon, and pertussis resurgence. *Science Translational Medicine*.
122. Noori, N., Drake, J.M. & **Rohani, P.** (2017) Comparative epidemiology of poliomyelitis transmission around the world. *Scientific Reports*.
121. Brett, T.S., Drake, J.M. & **Rohani, P.** (2017) Anticipating the Emergence of Infectious Diseases. *J R Soc Interface*. 14: 20170115.
120. Miller, P., O'Dea, E.B., **Rohani, P.** & Drake, J.M. (2017) Forecasting infectious disease emergence subject to seasonal forcing. *Theoretical Biology and Medical Modelling*.
119. Gill, C.J., **Rohani, P.** & Thea, D.M. (2017) Mucosal immunity, asymptomatic carriage and the resurgence of Bordetella pertussis. *Frontiers Research*.
118. Bento, A.I., King, A.A. & **Rohani, P.** (2017) Maternal pertussis immunization: clinical gains and epidemiological legacy *EuroSurveillance*. in press
117. Bento, A.I. & **Rohani, P.** (2016) Forecasting epidemiological consequences of maternal immunization. *Clinical Infectious Diseases* **63 Supp 4**: S205-S212.

116. Domenech de Celles, M., Magpantay, F.M.G., King, A.A. & **Rohani, P.** (2016) The Pertussis Enigma: Synthesizing Contradictory Evidence. *Proceedings of the Royal Society of London B*. **283**: 20152309
115. Blackwood, J.C., Cummings, D.A.T., Broutin, H., Iamsirithaworn, S. & **Rohani, P.** (2016) Examining the transmission consequences of pertussis vaccines using age-specific incidence patterns in Thailand. *Epidemics*. **16**: 1-7.
114. Kramer, A.M., Pulliam, J.T., Alexander, L.W., Park, A.W., **Rohani, P.** & John M. Drake. Spatial spread of the West Africa Ebola epidemic. *Royal Society Open Science*. in press
113. Vinson, J.E., Drake, J.M., **Rohani, P.** & Park, A.W. (2016) The potential for sexual transmission to compromise control of Ebola virus outbreaks. *Biology letters*, **12**: 584-587.
112. Martinez-Bakker, M., King, A.A., & **Rohani, P.** (2015) Unraveling the transmission ecology of polio. *PLoS Biology*. 10.1371/journal.pbio.1002172
111. Shrestha, S., Foxman, B., Berus, J., van Panhuis, W.G., Weinberger, D.M., Steiner, C., Viboud, C. & **Rohani, P.** (2015) The role of influenza in the epidemiology of pneumonia. *Nature Scientific Reports*. **5**: 15314.
110. King, A.A., Domenech de Celles, M., Magpantay, F.M.G. & **Rohani, P.** (2015) Avoidable errors in the modeling of outbreaks of emerging pathogens, with special reference to Ebola *Proceedings of the Royal Society of London B*. **282**: 20150347.
109. Magpantay, F.M.G., Domenech de Celles, M., **Rohani, P.** & King, A.A. (2015) Pertussis immunity and epidemiology: mode and duration of vaccine-induced immunity. *Parasitology*. **143**: 835 - 849.
108. Handel, A. & **Rohani, P.** (2015) Crossing the scale from within-host infection dynamics to transmission fitness: A discussion of current assumptions and knowledge. *Philosophical Transactions of the Royal Society of London B*. **370** 20140302
107. Riolo, M.A. & **Rohani, P.** (2015) Combating Pertussis Resurgence: One Booster Vaccination Schedule Doesn't Fit All. *Proceedings of the National Academy of Sciences USA* doi/10.1073/pnas.1415573112
106. Riolo, M.A., **Rohani, P.** & Hunter, M.D. (2015) Local variation in plant quality influences large-scale population dynamics. *Oikos* **124** 1160-1170.
105. Magpantay, F.M.G. & **Rohani, P.** (2015) Pertussis epidemiology in the United States during the early vaccine era. *American Journal of Epidemiology* **181** 921-31.
104. Roche, B., Drake, J.M., Brown, J., Stallknecht, D.E., Bedford, T. & **Rohani, P.** (2014) Adaptive evolution and environmental durability jointly structure phylogenetic patterns in avian influenza viruses. *PLoS Biology* **12** e1001931.
103. Martinez-Bakker, M., Bakker, K.M., King, A.A. & **Rohani, P.** (2014) Human Birth Seasonality: Latitudinal Gradient and Interplay with Childhood Disease Dynamics. *Proceedings of the Royal Society of London B* **281** 20132438.
102. Handel, A., Lebarbenchon, C., Stallknecht, D.E. & **Rohani, P.** (2014) Trade-offs within and between scales: Environmental persistence and in-host fitness of avian influenza viruses. *Proceedings of the Royal Society of London B* **281** 20133051.
101. Magpantay, F.G., Riolo, M.A., Domenech de Celles, M., King, A.A. & **Rohani, P.** (2014) Population-level models of imperfect vaccines. *SIAM Journal on Applied Mathematics*. **74** 1810-1830.
100. Brown, V.L., Drake, J.M., Stallknecht, D.E., Brown, J.D., Pedersen, K. & **Rohani, P.** (2014) Neutrality, Cross-Immunity and Subtype Dominance in Avian Influenza Viruses. *PLoS ONE* **9** e88817.
99. Domenech de Celles, M., Riolo, M., Magpantay, F.M.G., **Rohani, P.** & King, A.A. (2014) Acellular Pertussis Vaccines and Herd Immunity: The Epidemiological Evidence. *Proceeding of the National Academy of Sciences USA* 10.1073/pnas.1323795111.
98. Jackson, D. & **Rohani, P.** (2014) Perplexities of pertussis: recent global epidemiological trends and their potential causes. *Epidemiology & Infection* **42** 672-684.
97. Barton, H., **Rohani, P.**, Stallknecht, D., Brown, J. & Drake, J.M. (2014) Subtype diversity and reassortment potential for co-circulating avian influenza viruses at a diversity hotspot. *Journal of Animal Ecology* **83** 566-575.
96. Blackwood, J.C., Cummings, D.A.T., Broutin, H., Iamsirithaworn, S. & **Rohani, P.** (2013) Deciphering the impacts of vaccination and immunity on pertussis epidemiology in Thailand. *Proceeding of the National Academy of Sciences USA* **110** 9595-9600.
95. Blackwood, J.C., Streicker, D., Altizer, S.A. & **Rohani, P.** (2013) Immigration drives rabies persistence within vampire bat colonies. *Proceeding of the National Academy of Sciences USA* doi: 10.1073/pnas.1308817110.
94. Riolo, M.A., King, A.A. & **Rohani, P.** (2013) Can vaccine legacy explain the British pertussis resurgence? *Vaccine* **31** 5903-8.

93. Shrestha, S., Foxman, B., Weinberger, D.M., Steiner, C., Viboud, C. & **Rohani, P.** (2013) Unmasking the interaction between influenza and pneumococcal pneumonia using incidence data. *Science Translational Medicine* **5** 191ra84.
92. Shrestha, S., Foxman, B., Dawid, S. Aiello, A.E, Davis, B.M., Berus, J. & **Rohani, P.** (2013) Time and dose-dependent risk of pneumococcal pneumonia following influenza: A model for within-host interaction between influenza and Streptococcus pneumoniae. *Journal of the Royal Society Interface* **10** 10.1098/rsif.2013.0233.
91. Brown, V.L., Drake, J.M., Stallknecht, D.E., Brown, J.D., Pedersen, K. & **Rohani, P.** (2013) Dissecting a wildlife disease hotspot: the impact of multiple host species, environmental transmission and seasonality in migration, breeding and mortality. *Journal of the Royal Society Interface* **10** 20120804.
90. Pepin, K.M. *et al.* (2013) Using quantitative disease dynamics as a tool for guiding response to avian influenza in USA poultry. *Preventative Veterinary Medicine* **113** 376-97.
89. Handel, A., Brown J.D., Stallknecht, D.E. & **Rohani, P.** (2013) A multi-scale analysis of influenza A virus fitness trade-offs due to temperature-dependent virus persistence. *PLoS Computational Biology* **9** e1002989.
88. Roche, B. , **Rohani, P.**, Dobson, A.P. & Guegan, J.-F. (2013) Community ecology and epidemiology of infectious diseases: a new framework to study pathogen transmission through host community species. *American Naturalist* **181** 1-11.
87. Goldwyn, E.E. & **Rohani, P.** (2013) Pertussis Reporting Bias and its Public Health Implications. *Journal of Public Health Management & Practice* **19** 379-82.
86. Reich, N.G., Shrestha, S., Aaron A. King, **Rohani, P.**, Justin Lessler, Siripen Kalayanarooj, In-Kyu Yoon, Robert V. Gibbons, Donald S. Burke & Derek A. T. Cummings (2013) Interactions between serotypes of dengue highlight epidemiological impact of cross-immunity. *Journal of the Royal Society Interface* **10** 20130414.
85. Brown, V.L. & **Rohani, P.** (2012) The consequences of climate change at an avian influenza 'hotspot?'. *Biology Letters* **8** 1036-1039.
84. Lavine, J.S. & **Rohani, P.** (2012) Resolving pertussis immunity and vaccine efficiency using incidence time series. *Expert Review of Vaccines* **11** 1319-1329.
83. Choisy, M. & **Rohani, P.** (2012) Evolving Spatial Epidemiology of Pertussis in Continental USA. *Proceedings of the Royal Society of London B* **279** 4574-4581.
82. Blackwood, J.C., Cummings, D.A.T., Broutin, H., Iamsirithaworn, S. & **Rohani, P.** (2012) The population ecology of infectious diseases: pertussis in Thailand as a case study. *Parasitology* **139** 1888-1898.
81. Streicker, D.G., Recuenco, S., Valderrama, W., Gomez Benavides, J. Vargas, I., Pacheco, V., Condori, E., Montgomery, J., Rupprecht, C.E., **Rohani, P.** & Altizer, S.A. (2012) Ecological and Anthropogenic Drivers of Rabies Exposure in Vampire Bats: Implications for Transmission and Control. *Proceedings of the Royal Society of London B* **279** 3384-3392.
80. Roche, B., Dobson, A.P., Guegan, J.-F. & **Rohani, P.** (2012) Community ecology and epidemiology of infectious diseases: a new framework to study pathogen transmission through host community species. *Philosophical Transactions of the Royal Society of London B* **367** 2807-2813.
79. WHO-VMI Dengue Vaccine Modeling Group (2012) Assessing the Potential of a Candidate Dengue Vaccine with Mathematical Modeling. *PLoS Neglected Tropical Diseases* **6** e1450.
78. Shrestha, S., King, A.A. & **Rohani, P.** (2011) Statistical inference for multi-pathogen systems. *PLoS Comp. Biol.* **7** e1002135.
77. **Rohani, P.** & Drake, J.M. (2011) The decline and resurgence of pertussis in the US. *Epidemics* **3** 183-188.
76. Davis, B.M., Aiello, A.E., Dawid, S., **Rohani, P.**, Shrestha, S. & Foxman, B. (2011) Influenza and community-acquired pneumonia interactions: the impact of order and time of infection on population patterns. *American Journal of Epidemiology* **175** 363-367.
75. Roche, B., Drake, J.M. & **Rohani, P.** (2011) The curse of the pharaoh revisited: virulence polymorphism in environmentally transmitted pathogens. *Ecology Letters* **14** 569-575.
74. Roche, B., Drake, J.M. & **Rohani, P.** (2011) An Agent-Based Model to study the epidemiological and evolutionary dynamics of Influenza viruses. *BMC Bioinformatics* **12** 87.
73. **Rohani, P.**, Zhong, X. & King, A.A. (2010) Contact structure explains shifting epidemiology of pertussis. *Science* **330** 982-985.

72. **Rohani, P.** & King, A.A. (2010) Never mind the length, feel the quality: The Impact of Long-term epidemiological data sets on theory, application and policy. *Trends in Ecology & Evolution* **25** 611–618.
71. White, S.M., **Rohani, P.** & Sait, S.M. (2010) Modelling the fitness costs of transgenesis in SIT approaches. *Journal of Applied Ecology* **47** 1329–1339.
70. Broutin, H., Viboud, C., Grenfell, B.T., Miller, M.A. & **Rohani, P.** (2010) Impact of vaccination and birth rate on the epidemiology of Pertussis: a Comparative Study in 64 countries. *Proceedings of the Royal Society of London B* **277** 3239–3245.
69. Breban, R., Drake, J.M. & **Rohani, P.** (2010) A general multi-strain model with environmental transmission: Invasion conditions for the disease-free and endemic states. *Journal of Theoretical Biology* **264** 729–736.
68. Roche, B. & **Rohani, P.** (2010) Environmental Transmission Scrambles Coexistence Patterns of Avian Influenza Viruses. *Epidemics* **2** 92–98.
67. Bonds, M.H., Keenan, D.C., **Rohani, P.** & Sachs, J.D. (2010) Poverty Trap Driven by Feedback Between Economics and Ecology of Infectious Diseases. *Proceedings of the Royal Society of London B* **277** 1185–1192.
66. Conlan, A.J., **Rohani, P.**, Keeling, M.J., Lloyd, A. & Grenfell, B.T. (2010) Balancing the Impact of Deterministic and Stochastic Dynamics on the Persistence of Measles. *Journal of the Royal Society Interface* **7** 623–640.
65. Mantilla-Beniers, N.B., Bjornstad, O.N., Grenfell, B.T. & **Rohani, P.** (2010) Decreasing stochasticity through enhanced seasonality in measles epidemics. *Journal of the Royal Society Interface* **7** 727–739.
64. **Rohani, P.** (2009) The link between dengue incidence and El Nino Southern Oscillation. *PLoS Medicine* **6** e1000185.
63. **Rohani, P.**, Breban, R., Stallknecht, D.E. & Drake, J.M. (2009) Environmental Transmission of Low Pathogenicity Avian Influenza Viruses and its Implications for Pathogen Invasion. *Proceeding of the National Academy of Sciences USA* **106** 10365–9.
62. Wearing, H.J. & **Rohani, P.** (2009) Dynamical Implications of waning immunity for pertussis epidemiology. *PLoS Pathogens* **5** e1000647.
61. Bonds, M.H. & **Rohani, P.** (2009) Reducing Fertility More Effective than Vaccinating for Global Health and Economic Development; A Simple Ecological Framework. *Journal of the Royal Society Interface* **7** 541–547.
60. Breban, R., Drake, J.M., Stallknecht, D.E. & **Rohani, P.** (2009) The role of environmental transmission in recurrent avian influenza epidemics. *PLoS Computational Biology* **5** e1000346.
59. Niogret, J., Sait, S.M. & **Rohani, P.** (2009) Parasitism and constitutive defense costs on host life history traits in the parasitoid-host interaction *Venturia canescens* - *Plodia interpunctella*. *Ecological Entomology* **34** 763–771.
58. Nguyen, H.T.H. & **Rohani, P.** (2008) Noise, nonlinearity and seasonality: the epidemics of whooping cough revisited. *Journal of the Royal Society Interface* **5** 403–413.
57. Hall, S.R., Brown, J.M., Cáceres, C.E., Chase, J.M., Dobson, A.P., Holt, R.D., Jones, C.G., Lafferty, K.D., McCauley, D., Randolph, S.E. & **Rohani, P.** (2008) Is infectious disease just another type of consumer-resource interaction? In: *Infectious Disease Ecology* (Eds: Osfeld, Keesing & Eviner), Princeton University Press.
56. **Rohani, P.**, Wearing, H.J., Vasco, D.A. & Huang, Y. (2008) Understanding Host-Multi-Pathogen Systems: The Interaction Between Ecology and Immunology. In: *Infectious Disease Ecology* (Eds: Osfeld, Keesing & Eviner), Princeton University Press.
55. Cameron, T.C., Wearing, H.J., **Rohani, P.** & Sait, S.M. (2007) Two species asymmetric competition: Effects of age structure on intra- and inter-specific interactions. *Journal of Animal Ecology* **76** 83–93.
54. Vasco, D.A., Wearing, H.J. & **Rohani, P.** (2007) Tracking the Dynamics of Pathogen Interactions: Modeling Ecological and Immune-Mediated Processes in a Two-Pathogen Single-Host System. *Journal of Theoretical Biology* **245** 9–25.
53. White, S.M., Sait, S.M. & **Rohani, P.** (2009) Exploring the Population Dynamic Consequences of Parasitised-Larval Competition in Stage-Structured Host-Parasitoid. *Oikos*.
52. Choisy, M., Guegan, J.F. & **Rohani, P.** (2007) Mathematical modelling of infectious disease dynamics. In: *Encyclopedia of Infectious Diseases* (Ed: Tibayranc), Wiley Press.
51. Broutin, H., Mantilla-Beniers N.B. & **Rohani, P.** (2007) Ecology of infectious disease dynamics. In: *Encyclopedia of Infectious Diseases* (Ed: Tibayranc), Wiley Press.

50. Wearing, H.J. & **Rohani, P.** (2006) The ecological and immunological determinants of Dengue epidemics. *Proceeding of the National Academy of Sciences USA* **103** 11802-11807.
49. Choisy, M. & **Rohani, P.** (2006) Harvesting can increase severity of wildlife disease epidemics. *Proceedings of the Royal Society of London B* **273** 2025-2034.
48. Altizer, S., Dobson, A.P., Hosseini, P., Hudson, P.J., Pascual, M. & **Rohani, P.** (2006) Seasonality and population dynamics: infectious diseases as case studies. *Ecology Letters* **9** 467-484.
47. Huang, Y. & **Rohani, P.** (2006) Age-structured effects determine interference between childhood infections. *Proceedings of the Royal Society of London B* **273** 1229-1237.
46. Choisy, M., Guegan, J.F. & **Rohani, P.** (2006) Resonance effects and the dynamics of infectious diseases. *Physica D* **223** 26-35.
45. Reader, T., Cornell, S.J. & **Rohani, P.** (2006) Aggregation, intraguild interactions and the coexistence of competitors on small ephemeral patches. *Oikos* **115** 321-333.
44. Alexander, M.E., Moghadas, S.M., **Rohani, P.** & Summers, A.R. (2006) Modelling the effect of a booster vaccination on disease epidemiology. *Journal of Mathematical Biology* **52** 290-306.
43. Bonds, M.H., Keenan, D.C., Leidner, A.J. & **Rohani, P.** (2005) Infectious Diseases Can Induce Greater Sociality. *Evolution* **59** 1859-1866.
42. Wearing, H.J., **Rohani, P.** & Keeling, M.J. (2005) Appropriate Models for the Management of Infectious Diseases. *PLoS Medicine* **2** e174.
41. Huang, Y. & **Rohani, P.** (2005) The Dynamical Implications of Disease Interference: Correlations and Coexistence. *Theoretical Population Biology* **68** 205-215.
40. Cameron, T.C., Wearing, H.J., **Rohani, P.** & Sait, S.M. (2005) The sublethal effects of parasitoid attack mediate intraspecific competition. *Oikos* **110** 620-628.
39. Broutin, H., Mantilla-Beniers, N.B., Simondon, F., Aaby, P., Grenfell, B.T. Guegan, J.-F. & **Rohani, P.** (2005) Epidemiological impact of vaccination on the dynamics of two childhood diseases in rural Senegal. *Microbes & Infection* **7** 593-599.
38. Coulson, T.N., **Rohani, P.** & Pascual, M. (2004) Skeletons, noise and population growth: the end of an old debate? *Trends in Ecology & Evolution* **19** 360-364.
37. Wearing, H.J., Cameron, T., Sait, S.M. & **Rohani, P.** (2004) Cycle period and the structure of host-parasitoid assemblages. *Journal of Animal Ecology* **73** 706-722.
36. Wearing, H.J., **Rohani, P.**, Cameron, T. & Sait, S.M. (2004) The dynamical consequences of developmental variability and demographic stochasticity. *American Naturalist* **164** 543-558.
35. **Rohani, P.**, Miramontes, O. & Keeling, M.J. (2004) The Colour of Short Ecological Time-Series. *Mathematical Medicine & Biology* **21** 63-72.
34. Broutin, H., **Rohani, P.**, Guegan, J.F., Grenfell, B.T. & Simondon, F. (2004) Loss of immunity to pertussis in a rural community. *Vaccine* **22** 594-596.
33. **Rohani, P.**, Wearing, H.J., Cameron, T. & Sait, S.M. (2003) Natural Enemy Specialisation and the Period of Fluctuations. *Ecology Letters* **6** 381-384.
32. **Rohani, P.**, Green, C.J., Mantilla-Beniers, N.B. & Grenfell, B.T. (2003) Ecological Interference Among Fatal Infections. *Nature* **422** 885-888.
31. Miramontes, O. & **Rohani, P.** (2002) Estimating  $1/f^\alpha$  scaling exponent in short time-series. *Physica D* **166** 147-154.
30. **Rohani, P.**, Keeling, M.J., and Grenfell, B.T. (2002) The Interplay Between Noise and Determinism in Childhood Diseases. *American Naturalist* **159** 469-481.
29. Keeling, M.J. & **Rohani, P.** (2002) Spatial Coupling in Epidemiology: A Mechanistic Approach. *Ecology Letters* **5** 20-29.
28. Keeling, M.J., **Rohani, P.** & Grenfell, B.T. (2001) Seasonally Forced Disease Dynamics Explained by Switching Between Attractors. *Physica D* **148** 317-335.
27. Earn, D.J.D., Levin, S.A. & **Rohani, P.** (2000) Coherence and Conservation. *Science* **290** 1360-1364.

26. **Rohani, P.**, Earn, D.J.D. & Grenfell, B.T. (2000) The Impact of Immunisation on Pertussis Transmission in England & Wales. *Lancet* **355** 285-286.
25. **Rohani, P.**, Earn, D.J.D. & Grenfell, B.T. (2000) Immunisation and Pertussis Transmission in England & Wales. *Lancet* **355** 1553-1554.
24. Earn, D.J.D., **Rohani, P.**, Bolker, B.M. & Grenfell, B.T. (2000) A Simple Model for Complex Dynamical Transitions in Epidemics. *Science* **287** 667-670.
23. Ruxton, G.D. & **Rohani, P.** (1999) Fitness Dependent Dispersal in Metapopulations and Its Consequences for Persistence and Synchrony. *Journal of Animal Ecology* **67** 530-539.
22. **Rohani, P.**, Earn, D.J.D. & Grenfell, B.T. (1999) Opposite Patterns of Synchrony in Sympatric Disease Metapopulations. *Science* **286** 968-971.
21. **Rohani, P.** & Ruxton, G.D. (1999) Diffusion-induced Instabilities in Host-Parasitoid Metapopulations. *Theoretical Population Biology* **55** 23-36.
20. **Rohani, P.** & Ruxton, G.D. (1999) Dispersal and Metapopulation Stability. *IMA Journal of Mathematics and its Applications in Medicine & Biology* **16** 297-306.
19. Earn, D.J.D. & **Rohani, P.** (1999) Complex Dynamics in Ecology. *Trends in Ecology and Evolution* **14** 43-44.
18. **Rohani, P.**, Earn, D.J.D., Finkenstadt, B.F. & Grenfell, B.T. (1998) Population Dynamic Interference Among Childhood Diseases. *Proceedings of the Royal Society of London B* **265** 2033-2041.
17. Ruxton, G.D. & **Rohani, P.** (1998) Population Floors and Persistence of Chaos in Population Models. *Theoretical Population Biology* **53** 175-183.
16. Miramontes, O. & **Rohani, P.** (1998) Intrinsically Generated Coloured Noise in Laboratory Insect Populations. *Proceedings of the Royal Society of London B* **265** 785-792.
15. Earn, D.J.D., **Rohani, P.** & Grenfell, B.T. (1998) Synchronicity in Ecology and Epidemiology. *Proceedings of the Royal Society of London B* **265** 7-10.
14. Savill, N., **Rohani, P.** & Hogeweg, P. (1997) Evolutionary Consequences of Patterns Interacting Across Spatial and Temporal Scales. *Journal of Theoretical Biology* **188** 11-20.
13. **Rohani, P.**, Lewis, T.J., Grunbaum, D. & Ruxton, G.D. (1997) Spatial Self-Organisation in Ecology: Pretty Patterns or Robust Reality? *Trends in Ecology and Evolution* **12** 647-650.
12. **Rohani, P.** & Earn, D.J.D. (1997) Chaos in a Cup of Flour. *Trends in Ecology and Evolution* **12** 171.
11. **Rohani, P.**, May, R.M. & Hassell, M.P. (1996) Metapopulations and Local Stability: the Effects of Spatial Structure. *Journal of Theoretical Biology* **181** 97-109.
10. Harwood, J. & **Rohani, P.** (1996) ?The Population Biology of Marine Mammals?. In: *Frontiers of Population Biology* (Eds: R.B. Floyd, A.W. Sheppard, P.J. De Barro). CSIRO Publications.
9. **Rohani, P.** & Miramontes, O. (1996) Chaos or Quasiperiodicity in Laboratory Insect Populations. *Journal of Animal Ecology* **65** 847-849.
8. **Rohani, P.**, Hammond, P.S. & Grunbaum, D. (1996) Exploring the Consequences of Global Change for Southern Elephant Seal Populations. Document SC/M96/CC29. *International Whaling Commission Symposium on Climate Change and Cetaceans*, Hawaii, March 1996.
7. Ruxton, G.D. & **Rohani, P.** (1996) The Consequences of Stochasticity for Self-Organised Spatial Patterns, Persistence and Coexistence in Spatially Extended Population Models. *Proceedings of the Royal Society of London B* **263** 625-631.
6. **Rohani, P.** & Miramontes, O. (1995) Host Parasitoid Metapopulations: the Consequences of Parasitoid Aggregation on Spatial Dynamics and Searching Efficiency. *Proceedings of the Royal Society of London B* **260** 335-342.
5. **Rohani, P.** & Miramontes, O. (1995) Immigration and the Persistence of Chaos in Population Models. *Journal of Theoretical Biology* **175** 203-206.
4. **Rohani, P.** & Ruxton, G.D. (1995) Spatial Dynamics and Chaos. *Trends in Ecology and Evolution* **10** 491.



3. Hassell, M.P., Miramontes, O., **Rohani, P.** & May, R.M. (1995) Appropriate Formulation for Dispersal in Spatially Structured Models. *Journal of Animal Ecology* **65** 662-664.
2. **Rohani, P.**, Godfray, H.C.J. & Hassell, M.P. (1994) Aggregation and the Dynamics of Host Parasitoid Systems: A Discrete Generation Model with Within Generation Redistribution. *American Naturalist* **144** 491-509.
1. **Rohani, P.**, Miramontes, O. & Hassell, M.P. (1994) Quasiperiodicity and Chaos in Population Models. *Proceedings of the Royal Society of London B* **258** 17-22.

## MENTORING

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### Graduate Students

#### UNIVERSITY OF GEORGIA

2017 – 2022 Deven Gokhale (PhD, Ecology)

2017 – 2018 Mahdi Kashani (MSc, Computer Science)

#### UNIVERSITY OF MICHIGAN

2010 – 2015 Micaela Martinez-Bakker (PhD, Ecology & Evolutionary Biology) – Assistant Professor, Columbia University

2011 – 2014 Maria Riolo (PhD, Applied & Interdisciplinary Mathematics) – McDonnell Foundation Fellow, University of Michigan

#### UNIVERSITY OF GEORGIA

2006 – 2011 Daniel Streicker (PhD, Ecology) – Sir Henry Dale Fellow, University of Glasgow

2005 – 2007 Hanh Nguyen (MSc, Ecology) – Director, NGO, Hanoi, Vietnam

2003 – 2006 Matthew Bonds (PhD, Ecology) – Assistant Professor, Harvard University

#### UNIVERSITY OF CAMBRIDGE

2000 – 2004 Natalia Mantilla-Beniers (PhD, Zoology) – Professor, UNAM, Mexico

1998 – 2001 Tom Reader (PhD, Zoology) Professor, University of Nottingham

### Postdocs

#### UNIVERSITY OF GEORGIA

2015 – PRESENT Jasmina Luczo

2015 – PRESENT Ana Bento

2015 – PRESENT Toby Brett

2015 – PRESENT Navideh Noori

2016 – 2017 Afshin Mesbahi

2015 – 2016 Diego Moreno

#### UNIVERSITY OF MICHIGAN

2013 – 2015 Felicia Magpantay (Kingston University)

2013 – 2015 Matthieu Domenech de Celles (Institut Pasteur, Paris)

2012 – 2013 Doug Jackson (USGS)

2009 – 2013 Sourya Shrestha (Johns Hopkins University)

2010 – 2013 Vicki Brown (University of South Wales)

2011 – 2012 Jijun Zhao (Qingdao University)

2010 – 2013 Julie Blackwood (Williams College)

2012 – 2014 Daniel Streicker (University of Glasgow)

2010 – 2011 Eli Goldwyn (University of Portland)

2008 – 2010 Benjamin Roche (IRD, Montpellier)

2009 – 2010 Xue Zhong (Vanderbilt University)

## MENTORING, CONTINUED

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#### UNIVERSITY OF GEORGIA

2007 – 2009 Jerome Niogret (USDA, Florida)

2007 – 2009 Romulus Breban (Institut Pasteur, Paris)

2005 – 2008 Steven White (University of Oxford)

2004 – 2008 Dan Vasco (University of Luxembourg)

2005 – 2006 Marc Choisy (IRD, Vietnam)

2001 – 2007 Helen Wearing (University of New Mexico)

2003 – 2005 Yunxin Huang (University of Kentucky)

### UNDERGRADUATE RESEARCH ASSISTANTS

Nick Lupien (Computer Science, UGA), Andrew Leidner (Economics, UGA), Samantha Burton (Ecology, UGA), Mark Milby (Ecology, UGA), Emily Carter (Ecology, UGA), Sheena Zhang (Biology, UGA), Micaela Martinez-Bakker (EEB, Michigan), Joshua Berus (Biology, Michigan), Monica Sangal (EEB, Michigan).

### GRADUATE ADVISORY COMMITTEES

Sandy Helms (Ecology, UGA), Lucas Wilkinson (Ecology, UGA), Tom Cameron (Biology, University of Leeds), Caralyn Zehnder (Ecology, UGA), Sonia Hernandez (Ecology, UGA), Vanessa Corby (Genetics, UGA), Chih-Horng Kuo (Genetics, UGA), Bradd Haley (Environmental Health, UGA), Cat Bradley (Ecology, UGA), JD Willson (SREL, UGA), Doug Jackson (EEB, Michigan), Jennifer Knapp (Epi, Michigan), Andres Baeza (EEB, Michigan), Clarisse Bettancourt (EEB, Michigan), Paul Glaum (EEB, Michigan), Paige Miller (UGA), Madhura Rane (Epi, Washington).

### PHD THESES EXAMINED

Lisa White, University of Warwick 7/12/00

Deborah Long, University of Cambridge 14/7/01

Andrew Conlan, University of Cambridge 10/12/06

## TEACHING

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#### UNIVERSITY OF GEORGIA

GRSC 8020 **Critical Reading of the Primary Scientific Literature** (2016)

ECOL 8910 **Multiscale Modeling** (2017)

ECOL 8520 **Fundamentals of Infectious Disease Ecology** (2017)

#### UNIVERSITY OF MICHIGAN

EEB 315 **Ecology & Evolution of Infectious Diseases** (2010, 2011, 2013, 2014, 2015)

CMPLXSYS 430 **Modeling Infectious Diseases** (2010, 2011, 2013, 2014, 2015)

#### UNIVERSITY OF GEORGIA

ECOL 8325 **Modeling Ecological Populations** (2003 – 7)

ECOL 8310 **Population & Community Ecology** (2008)

ECOL 8990 **Ecology of Infectious Diseases** (2006, 2008)

## TEACHING, CONTINUED

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ECOL 4650 **Foundations of Ecology** (2004, 2005)

ECOL 4900 **Senior Seminar** (2005)

### EXTRAMURAL

Summer School in Statistics & Modeling in Infectious Diseases, University of Washington **Mathematical Models of Infectious Diseases** (2009 – PRESENT)

International Center for Theoretical Physics, Trieste, Italy **Modeling Infectious Diseases** (2000, 2013)

Nelson Mandela African Institution of Science & Technology, Arusha, Tanzania **Modeling Infectious Diseases** (2011)

## PROFESSIONAL SERVICE

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### INVITED CONFERENCE PRESENTATIONS

- **International Conference on Mathematical Biology**, Alcalá, Spain; Sept 1998
- **From Cells to Continua: Modelling Space in Biology**, Edinburgh; Mar 1999
- **Workshop on Modelling Whooping Cough**, Barcelona; May 2001
- **SIAM conference on Life Sciences**, Boston; Mar 2002
- **IUBS Symposium on Integrative Biology**, UNESCO, Paris; May 2002
- **DIMACS workshop on epidemiology**, Rutgers University; July 2002
- **Workshop on Modelling Whooping Cough** New York City; Oct 2002
- **Journées de l'IFB**, Tours, France; Dec 2002
- **Ecology of Infectious Diseases Symposium**, AAAS meeting, Denver; Feb 2003
- **Seasonality of Infectious Diseases working group**, NCEAS, Santa Barbara, Oct 2003
- **Networks and the Dynamics of Disease Transmission**, Minnesota, Nov 2003
- **Disease Ecology and Evolution**, EEID meeting, Emory, May 2004
- **Biodiversity: Science & Governance**, Paris Jan 2005
- **Mathematics of Infectious Diseases**, AAAS meeting, Washington DC, Feb 2005
- **Ecology of Infectious Diseases**, Cary Conference, Institute of Ecosystem Studies, Apr 2005

## CONTINUED

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- **Viral Paradigms**, Georgia Tech, Jan 2008
- **You say pertussis, I say petussis**, Transmission 2008, Warwick, UK July 2008
- **Complex and stochastic epidemic dynamics**, SIAM, Montreal Aug 2008
- **Computational Problems in Epidemiology** ISIF, Turin, Italy Oct 2008
- **Epidemiology of Pertussis**, Centres for Disease Control & Prevention, Dec 2008
- **Transient dynamics in Infectious Diseases** ESA, Milwaukee, Aug 2008
- **Ecology of Avian Influenza Viruses** Immunobiology of Influenza, UGA Jul 2009
- **Hierarchical dynamics of pertussis** MAC-EPID symposium, UMich, Sept 2009
- **Modeling dengue serotype dynamics**, Duke-NUS EID, Singapore, Dec 2009
- **Michigan-Santa Fe Institute Conference**, Ann Arbor, Oct 2010
- **Disease Invasion Impacts on Biodiversity symposium**, Zoological Society of London, Nov 2010
- **MIDAS network meeting**, Alexandria, VA, Nov 2012
- **U-M American Medical Student Association**, Ann Arbor, Oct 2013
- **Complexity and multi-discipline Science**, UNAM, Mexico City, Nov 2013
- **Vaccines and evolution**, Annecy, France, Nov 2013
- **Keystone Symposium on Coinfection**, Ouro Preto, Brazil, Mar 2015
- **Conference Mathematical & Computational Epidemiology**, Erice, Italy, Aug 2015
- **Contagion 2015**, Tempe, Arizona, Sep 2015
- **Infant Burden of Pertussis**, Atlanta, GA, Feb 2016
- **MIDAS network meeting**, Washington, DC, May 2016
- **Society for Epidemiologic Research**, Miami, FL, Jun 2016
- **Multi-Strain Infectious Disease Systems**, Utrecht, Netherlands, Sep 2016
- **Public Health and Modelling**, Toronto, Canada, Oct 2016
- **Vaccines & Vaccination**, Annecy, France, Nov 2016

## PROFESSIONAL SERVICE

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### CONTRIBUTED TALKS

- British Ecological Society Annual Meeting, Lancaster, Dec 1993
- British Ecological Society Annual Meeting, Birmingham, Dec 1996
- International Ecology Congress, Florence, July 1998
- Ecological Society of America Annual Meeting, Spokane, Aug 1999
- British Ecological Society Annual Meeting, Leeds, Jan 1999
- British Ecological Society Annual Meeting, Sheffield, Dec 2000
- Ecological Society of America Annual Meeting, Tucson, Aug 2002
- Ecological Society of America Annual Meeting, Savannah, Aug 2003
- Ecological Society of America Annual Meeting, Montreal, Aug 2005
- Ecological Society of America Annual Meeting, Pittsburgh, Aug 2010
- Ecological Society of America Annual Meeting, Portland, Aug 2017

### DEPARTMENTAL SEMINARS

- Department of Biology, University of Leiden, Netherlands; Feb 1993
- Department of Biology, University of Tartu, Estonia; Dec 1993
- Institute of Physics, UNAM, Mexico City; Jul 1996
- Department of Biology, University of Stirling, Scotland; Nov 1996
- School of Arts & Sciences, University of Tokyo, Japan; Jan 1997
- School of Biological Sciences, University of Liverpool; Apr 1997
- Institute of Ecology, UNAM Mexico City; May 1998
- Centre for Nonlinear Dynamics, University College, London; Jun 1998
- Department of Biology, Imperial College, Silwood Park; Nov 1999
- Department of Biology, University of Stirling, Scotland; Nov 1999

- Centre for Complexity, UNAM, Mexico City; Aug 2000
- Department of Biology, Imperial College, Silwood Park; Nov 2001
- Division of Environmental and Evolutionary Biology, University of Glasgow; Nov 2001
- National Immunisation Program, CDC, Atlanta; Mar 2002
- Department of Environmental Sciences, Emory University, Atlanta; Sept 2002
- Department of Ecology & Evolutionary Biology, University of Michigan; Oct 2002
- Ecology and Evolutionary Biology Department, University of Tennessee; Mar 2003
- Department of Genetics, University of Georgia; Sept 2003
- Department of Ecology and Evolutionary Biology, Harvard University; Sept 2003
- Department of Ecology & Evolution, Chicago University, Jan 2004
- Department of Ecology & Evolution, Georgia Institute of Technology, Sept 2004
- Department of Plant Pathology, University of Georgia, Nov 2004
- National Immunisation Program, CDC, Atlanta; Jan 2005
- Department of Ecology & Evolution, Princeton University, Mar 2005
- Department of Statistics, University of Georgia, Apr 2005
- Department of Biology, Emory University, Jan 2007
- Department of Mathematics, Georgia Institute of Technology, Feb 2007
- School of Public Health, Yale University, Apr 2007
- Department of Infectious Diseases, University of Georgia, Feb 2008
- Department of Biology, University of North Carolina, April 2008
- Department of Avian Health, University of Georgia, Nov 2008
- Institute of Complex Systems, Ecole Normal Superior, Paris, Jan 2009

## PROFESSIONAL SERVICE

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### DEPARTMENTAL SEMINARS

- Department of Ecology and Evolutionary Biology, U Michigan, Feb 2009
- Department of Ecology and Evolution, University of Chicago, Feb 2009
- Department of Epidemiology, Harvard University, Feb 2010
- Program in Interdisciplinary Biological and Biomedical Sciences, UNM Apr 2010
- Department of Statistics, University of Michigan, Oct 2010
- Laboratory of Respiratory Pathogens, FDA, Dec 2011
- Institute Pasteur, Paris, Apr 2012
- Center for Infectious Disease Dynamics, Penn State, Sept 2012
- Applied & Industrial Mathematics, UMich, Feb 2012
- Department of Epidemiology, UMich, Feb 2012
- Kellogg Biological Station, Michigan State, Sep 2013
- Department of Biology, U Florida, Mar 2014
- Department of Mathematics, U Georgia, Mar 2016
- Department of Biology, Notre Dame, Apr 2018

### EDITORIAL BOARDS

- American Naturalist (2007-present)
- Proceedings of the Royal Society of London - Biological Sciences (2012-present)

### GUEST ACADEMIC EDITOR

PNAS, PLoS Biology, PLoS Medicine, PLoS Computational Biology

### AD HOC PEER-REVIEWER

Includes: American Journal of Epidemiology, American Naturalist, Biology Letters, British Medical Journal, Ecology, Ecology Letters, Emerging Infectious Diseases, Epidemiology and Infection, Eusorsurveillance, Journal of Animal Ecology, Lancet, Mathematical Biosciences, Nature, Nature Communications, Nature Medicine, Nature Reviews Microbiology, Oikos, Physica D, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society of London: Biological Sciences, Philosophical Transactions of the Royal Society of London: Biological Sciences, PLoS Biology, PLoS Medicine, PLoS Pathogens, Science, Theoretical Population Biology, Trends in Ecology and Evolution, Trends in Microbiology, Trends in Parasitology

### EXTERNAL BOOK REVIEWER

Cambridge University Press, Springer Verlag, University of Chicago Press, Princeton University Press

### GRANT REVIEW PANEL MEMBER

National Science Foundation

- Population & Community Ecology (2007, 2009, 2015)
- Ecology & Evolutionary Processes (2010, 2012)

National Institutes of Health

- MIDAS project grants (2008)
- Clinical Research and Field Studies of Infectious Diseases (2011)
- Modeling and Analysis of Biological Systems (2014, 2017)
- Special Emphasis Panel (2015, 2016)
- Infectious, Reproductive, Asthma and Pulmonary Conditions (2015, 2016, 2017-2021)

Netherlands Organisation for Scientific Research (2016)

### AD HOC PROPOSAL REVIEWER

Biotechnology and Biological Sciences Research Council (UK), Natural Environment Research Council (UK), National Science Foundation, Wellcome Trust (UK), Medical Research Council (UK), European Research Council, Trinity College (Cambridge, UK) and Emmanuel College (Cambridge, UK)

### ADVISORY BOARD MEMBER

- Chair, Modeling Infectious Disease Agent System Network Executive Committee (2017 - present)
- Modeling Infectious Disease Agent System Network Steering Committee (2014 - present)
- Polymath, UK (2011 - Present)
- Summer Institute on Statistics and Modeling in Infectious Diseases, University of Washington, USA (2011 - present)
- Board of Scientific Counsellors, National Center for Zoonotic, Vector-Borne and Enteric Diseases, CDC (2007 - 2008)

### AD HOC REVIEWER

MacArthur Foundation Fellows Program

### PANEL MEMBER

Institute of Medicine committee to review health and safety outcomes of immunization schedule (2012-2013)

## PROFESSIONAL SERVICE

### CONFERENCES/SYMPOSIA ORGANIZED

- ESA symposium *The death of determinism? The role of noise and nonlinearity in ecological theory* Savannah, GA 2003 (Pascual, Rohani)
- Ecology & Evolution of Infectious Diseases Conference, Athens, GA 2009 (Altizer, Rohani)
- Ecology & Evolution of Infectious Diseases Conference, Ann Arbor, MI 2012 (Rohani, King)

### SERVICE TO UNIVERSITY OF GEORGIA

#### Odum School of Ecology

Seminar Committee Chair (2016 - present), IDEAS Steering Committee (2015 - present), Center for the Ecology of Infectious Diseases Steering Committee (2016 - present), Graduate Affairs (2007- 2009), Seminar (2004-2005), Computing Facilities (Chair, 2003-2004), Executive Committee (2007-2009), Space (2004-2006), Ecosystem ecology search committee (2003), Institute of Ecology director search committee (2005), UGA Faculty of Infectious Diseases search committee (2007, 2008), Population ecologist (Chair: 2004, 2005, 2007), Evolutionary Ecologist (Chair 2007)

#### Department of Infectious Diseases

Executive Committee (2015 - present), 5-year Strategic Planning Committee (2016 - present), Fundraising Committee (2016)

#### Department of Genetics

Theoretical Evolutionary Genetics search committee (2005)

#### University Service

- Tenure & Promotions Appeals Committee (2016 - present)
- GA Research Computing Resource Center (GACRC) Advisory Committee (2016 - present)
- Executive Committee Member and co-Founder: UGA Ecology of Infectious Disease Research Initiative
- UGA Task Force on Graduate Education (2006-2007)
- Executive Council, UGA Faculty of Infectious Diseases (2007 - 2009)
- President's Faculty Advisory Committee (2008 - 2011)
- UGA Research Advisory Committee (2008 - 2009)

### SERVICE TO UNIVERSITY OF MICHIGAN

#### Ecology & Evolutionary Biology

Graduate affairs committee (2010-2012), Executive committee (2012-2014), Networks search committee (2011), 2 Tenure-Promotion committees (2011, 2013), 9 Decision making bodies (2010, 2011, 2012, 2014, 2015), Prelims committee (2014-2015), Promotion & Merit Committee (2014-2015)

#### Center for the Study of Complex Systems

Tenure-promotion (2011, 2012), Search committee (2012, 2013, 2014)

#### Epidemiology

Virology search committee (2012, 2014)

#### University Service

Interdisciplinary Studies Committee of the Individual Major Program (2014-2015)

## REFEREES

PROFESSOR BT GRENFELL, FRS  
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Princeton University, Princeton, NJ 08544-1003, USA  
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